R E P O R T R E S U M E S

ED 015 262 D8 VT 003 259

CONFERENCE ON MAJOR PROBLEMS IN VOCATIONAL EDUCATION IN THE SOUTH. CENTER SEMINAR AND CONFERENCE REPORT, NUMBER 1.

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REPORT NUMBER BR-5-1005-CR-1 PUB DATE 66
CONTRACT OEC-5-85-107
EDRS PRICE MF-$0.25 HC-$1.88 45P.

DESCRIPTORS- *VOCATIONAL EDUCATION, *SOUTHERN STATES, *EDUCATIONAL PROBLEMS, ADMINISTRATIVE PROBLEMS, CURRICULUM PROBLEMS, PERSONNEL, FINANCIAL PROBLEMS, RESEARCH PROBLEMS, STUDENT PROBLEMS, EMPLOYMENT PROBLEMS, CONFERENCES, PROGRAM PLANNING,

MAJOR PROBLEMS IN VOCATIONAL EDUCATION RELATING TO PERSONNEL, CURRICULUM, STUDENTS, OPERATING POLICIES AND PROCEDURES, AND FINANCING WERE STUDIED BY 20 REPRESENTATIVES FROM EDUCATION, INDUSTRY, AND STATE AGENCIES AT A REGIONAL CONFERENCE. CONFERENCE OBJECTIVES WERE TO (1) IDENTIFY URGENT PROBLEMS IN VOCATIONAL EDUCATION, (2) SUGGEST FEASIBLE SOLUTIONS, AND (3) IDENTIFY RESEARCH FOR THE SOLUTION OF THESE PROBLEMS. CONSULTANTS DISCUSSED PROBLEMS IN FIVE AREAS OF VOCATIONAL EDUCATION. PERSONNEL PROBLEMS WERE THE CRITICAL PERSONNEL SHORTAGE AND THE FUTURE ROLE OF THE VOCATIONAL ADM'NISTRATOR AS A PLANNER AND LEADER-ARRANGER. THE MAJOR PROBLEM IN CURRICULUM WAS KEEPING CONTENT CURRENT. STUDENT PROBLEMS INVOLVED HELPING STUDENTS MAKE VALID EDUCATIONAL CHOICES, IMPROVING THE STATUS OF VOCATIONAL EDUCATION, IDENTIFYING STUDENT MOTIVATIONS, AND CHANGING SOUTHERN CULTURAL INHIBITIONS AGAINST FEMALE EMPLOYMENT IN INDUSTRY. OTHER PROBLEMS INCLUDED A LACK OF OVERALL POLICY WHICH IS REFLECTED IN THE ISOLATION OF VOCATIONAL EDUCATION FROM GENERAL EDUCATION AND A NEED FOR MORE EFFICIENT UTILIZATION OF FINANCING BY KNOWING SOURCES OF FUNDS AND PRESENTING ADEQUATE DATA TO INFLUENCE THEIR ALLOCATION. (EM)

ED015262

AUG 28 1967

CONFERENCE ON MAJOR PROBLEMS IN VOCATIONAL EDUCATION IN THE SOUTH

JOSEPH T. NERDEN

CONFERENCE CHAIRMAN

DEPARTMENT OF INDUSTRIAL AND TECHNICAL EDUCATION

NORTH CAROLINA STATE UNIVERSITY AT RALEIGH

Center Seminar and Conference Report No. 1

CENTER FOR OCCUPATIONAL EDUCATION

NORTH CAROLINA STATE UNIVERSITY AT RALEIGH

1966

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF EDUCATION—BUREAU OF RESEARCH

DIVISION OF ADULT AND VOCATIONAL RESEARCH

PROJECT NO. DAVR 5-1005, CONTRACT NO. OE 5-85-107

VT003259

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The Center for Research, Development, and Training in Occupational Education was approved and established as a Research and Development Center in 1965, under the provisions of Section 4(c) of the Vocational Education Act of 1963. The initial approval was for 20 months, ending 31 January, 1967. The proposal for the continuation of the Center for five years, beginning 1 February, 1967, has been approved and the continuation program is in operation. The total program, which has emphasized research in crucial problems in occupational education since its inception, has been divided into five complementary programs, including a research program, an evaluation program, a research development program, a research training program (in occupational education), and a services and conferences program. The Center is designed and organized to serve the nation, with special orientation to the southern states.

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CONFERENCE ON MAJOR PROBLEMS IN VOCATIONAL EDUCATION IN THE SOUTH

Project No. 5-1005
Contract No. OE-5-85-107

JOSEPH T. NERDEN
Conference Chairman

1966

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Center Seminar and Conference Report No. 1

CENTER FOR OCCUPATIONAL EDUCATION
North Carolina State University at Raleigh
Raleigh, North Carolina

PREFACE

The Services and Conferences Program of the Center for Occupational Education provides for the sponsorship of conferences to explore in depth the major problems confronting vocational and technical education not only in the South, but throughout the Nation. The overview conference reported herein was the first regional conference sponsored by the Center. It is expected that the stimulating presentations by the consultants and the deliberations of the participants, reported in these proceedings, will serve as inputs into the initiation of research and development projects, as well as bases for inquiry as to how existing programs may be improved.

The leadership of Dr. Joseph T. Nerden, Professor of Industrial and Technical Education at North Carolina State University at Raleigh and Conference Chairman is acknowledged. Appreciation also is expressed to the members of the planning committee, including Lane Ash of the Division of Vocational and Technical Education, U. S. Office of Education; A. G. Bullard, Director, Division of Vocational Education, North Carolina Department of Public Instruction; I. E. Ready, Director, Department of Community Colleges, North Carolina State Board of Education; and Professors Charles E. Lewis, James G. Maddox, and C. Paul Marsh of North Carolina State University at Raleigh.

The presentations of the consultants outlined the dimensions of the problems discussed at the conferences. The consultants represented the U. S. Office of Education, state divisions of vocational education; university personnel, and other agencies. It is a pleasure to thank

Lane Ash and Merle Strong of the Division of Vocational and Technical Education, U. S. Office of Education; Harry G. Beard of the Departments of Rural Sociology and Education at North Carolina State University at Raleigh; Eugene Bottoms, of the Georgia State Department of Education; and Robert Lafaso of the North Carolina Fund for their preceptive thrusts into the problems to which they were assigned.

John K. Coster, Director
Center for Occupational Education

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INTRODUCTION

A shift in industrial development is taking place in the nation, and many of the states in the South are rapidly moving in the direction of the provision of vocational training facilities to meet the present needs of industry and business. Throughout the South new vocational education institutions are springing up, and the problems which have plagued vocational education in other parts of the country are appearing in the South. The manifold problems of obtaining qualified instructors, supervisors, and administrators is a serious one, along with the ever present requirement that programs be kept current and appropriate to the needs of the employers who anxiously await graduates from the vocational education institutions.

The overview conference was the procedure used to assemble top-level personnel in the South for the purpose of reviewing the kinds of problems which are currently being met by vocational educators, and to innovate, devise, or suggest ways and procedures which might be used to solve the major aspects of these problems. The report which follows indicates the extent to which the individuals who participated in the conference sought solutions and revealed individual thinking. The future successes of vocational education in the South may very well depend upon some of the suggestions that were voiced at the conference; the entire Southeast owes a debt of gratitude to the individuals who met in the conference and gave several days of valuable time and effort to the project.

Acknowledgment is also made to those individuals who so willingly gave of their time to actively participate in this conference and who

spent many days in the special planning activities as members of the conference committee.

J.T.N.

OBJECTIVES OF CONFERENCE

1. Identification of urgent problems in vocational education
2. Suggested and feasible solutions to the problems
3. Research needed for the further solution of the problems

PLANNING COMMITTEE

Mr. Lane Ash, Director, Program Services Branch, Division of Vocational and Technical Education, Bureau of Adult and Vocational Education, U. S. Office of Education, Washington, D. C.

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PROBLEMS CONCERNING PERSONNEL

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Program Services Branch
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Bureau of Adult and Vocational Research
U. S. Office of Education
Washington, D. C.

HIGHLIGHTS OF PRESENTATION

1. The fabric and structure of vocational education in the U. S. Office of Education recognizes the importance of each of the factors in the educative process: the teacher, the supervisor, the coordinator, the administrator, the guidance person, and the counseling services. The provision of assistance and service to each of these people is regularly included in the operating functions of the U. S. Office of Education.

2. The preparation of teachers for the field of trade and industrial and technical education follows the old pattern of progression from the craftsman to the journeyman to the teacher.

3. Regardless of the procedures which may be used to obtain, recruit, or prepare individuals to teach in the field of trade, industrial and technical education, it is essential that these teachers be master craftsmen, and that they be fully cognizant of teaching procedures.

4. At the present time, there are nearly six million persons enrolled in all kinds of industrial education. Over one-half of these enrollees are adults. The tremendous enrollments require over one hundred thousand instructors in over eighty occupational fields. Broken down into approximate categories, there are four thousand local directors and administrators of vocational education, approximately two thousand people in state supervisory and administrative positions, over two thousand teachers of highly

specialized programs, and the remainder are employed in approximately eighty occupational training programs, representing many varities and types.

5. In teacher preparatory activities across the nation, a variety of procedures are in use. Some teachers are prepared in institutions which conduct specially devised programs of preparation; others are prepared by informal procedures used by teacher educators; still others receive little or no professional education during their first years of teaching experience.

6. There is a critical shortage of vocational personnel to staff the teaching, supervisory, and administrative positions. Personnel shortage was identified as the Number 1 problem facing vocational education in the nation in the nine regional conferences that were held recently under the sponsorship of the U. S. Office of Education.

7. The problem of recruiting and training of appropriately qualified individuals to staff vocational education enterprises is complicated by the projections of need. In the future, five hundred thousand more individuals will be enrolled in a wide variety of vocational education enterprises, with the possibility that the total may run to more than seven million participants in the next few years. Projections include a tripling of the supervisory and administrative staff of the U. S. Office of Education and the need for similar supervision growth in the state level operating staffs and in the operating units. Because analyses already made available appear to indicate that ten thousand or more new jobs will be available each month in the health occupations field alone, the potential enrollment in the vocational training facilities will grow and will require renewed efforts to

persons instructors, supervisors, and administrators for the staffing of institutions.

8. The role of the administrator for the future may change. He may become a planner and a leader-arranger, rather than one whose major efforts are spent in supervision and the maintenance of quality of instruction. By dint of the tremendous growth in buildings and facilities, there is evidence that there is need for changing the major responsibilities of the leaders of education.

REACTIONS BY PARTICIPANTS

1. To prepare individuals for teaching in the field of vocational education, procedures similar to those used by four-year colleges should be studied. Such a study and its recommendations might provide for cooperative experiences in which the trainee would receive his professional education in the college, but would acquire his skill competencies in industry.

2. Whatever procedure is used in preparing individuals for teaching in vocational education, insistence must be made that the basic skill competencies be acquired.

3. In recruiting administrative personnel, every effort should be made to identify the needed competencies normally found in industrially employed personnel, and to make the same kinds of competencies a requirement for the employment of personnel in administrative positions for vocational education. Once employed, further training of these persons on the job in the vocational training facility should take place on an individual basis. Constant "over the shoulder" supervision could provide for the personal growth of such recruited individuals.

4. Constant contact with advisory groups will provide a ready source of information concerning not only the individuals who might be available for appointment, but also the quality of the background which may be required in the individuals to insure quality performance.

5. The employment of young administrators, drawn directly from industry, and the assignment of individuals as interns may provide a usable procedure for staffing positions.

6. There is need to experiment with the procedure which states

that "not less than three years of high level participating trade experience" is required for trade instructors. Perhaps some arrangement should be made in which cooperative work experience coupled with school instruction may be followed by supervised teaching experience and directed work experience. In this way, there may be some possibility that individuals who do not have the full three years of participating trade experience may be employed and helped to grow into professional teaching positions through quality supervision.

7. There is much evidence that in working with industry now and in the immediate future, the "image" of vocational education may be improved, with the result that many more individuals currently employed in industry will be attracted to teaching, supervisory and administrative positions in vocational education.

8. Regular contact with all of the employing elements in the area served by the institution must be maintained. From these employing elements, information concerning the availability of individuals and their required competencies may be obtained.

9. Recruitment of personnel from industry training programs is possible. Employment and appointment of such individuals should be followed by a subsidized program of professional preparation.

10. Steps might be taken to work out all of the relationships with the cooperating universities and colleges to provide long-term practical experiences for instructors. This infers that individuals drawn into the training program would have an opportunity to obtain practical experiences in cooperation with industries in the area.

11. Steps should be taken immediately to work with the accredita-

tion agencies and with the certification agencies to develop more realistic requirements. Many of these requirements tend to keep out of teaching, supervision and administration those persons who have the ability to perform well, but who lack some of the outdated requirements.

12. Efforts must be made to acquaint potential teachers in the community with the "limited" requirements in professional preparation. Many individuals who otherwise might be attracted to the field of vocational education as teachers, have the illusion that it requires several years of professional courses in methodology and other areas of concentration.

13. Teacher educators, administrators, and planners of vocational enterprises in the community should recruit from industry and should conduct their recruitment through newspaper articles, talks to engineering associations, professional organizations and other similar employment-oriented organizations.

14. To the extent that it might be possible, top level industrialists, employers, and managers of outstanding occupational areas in the community should be employed as part-time teachers in the vocational schools. Not only will the quality of the instruction be improved, but the procedure will have a rather complementary effect upon the "status" of the program of vocational education in the region served by the school. Adequate public information concerning the use of these individuals in part-time teaching assignments should be provided.

PROBLEMS CONCERNING CURRICULUM

Merle Strong, Assistant Director
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HIGHLIGHTS OF PRESENTATION

1. Curriculum includes attention to what should be taught, to whom and at what levels instruction should be offered.

2. The clientele currently being served in vocational institutions has changed drastically within the last five years. The implementation of the Vocational Education Act of 1963 and the extensions of the Manpower Development and Training Act, have resulted in reaching out and including far more individuals in the field of vocational education who need training than was ever anticipated in the earlier legislation in vocational education.

3. Factors which have a bearing upon the curriculum to be provided for enrollees in vocational education programs depend upon a series of propositions. These are included herewith:

   a. It is the responsibility of public education to provide vocational education.

   b. It is the responsibility of public education to provide vocational education at all levels.

   c. It is the responsibility of public education to provide training on a broad spectrum of abilities for all levels of vocational education.

   d. Vocational education should be based upon broad explora-

tions and early explorations of all kinds of occupations. The necessary articulation between different kinds of vocational education programs is evident, but there is little likelihood that this will occur to any considerable degree.

e. Vocational education programs should train for an occupation or for a cluster of occupations.

f. Since there is no research to substantiate the procedure, there is need to question cluster training as the best procedure in the future.

g. The lower the ability level of training being provided, the more specific is the need of the particular training program.

h. General education and vocational education should be a part of education for all students.

i. Apprenticeship as a part of the total vocational structure and pattern needs immediate strengthening.

4. Information and continuing surveys of the need of manpower in the nation, and the jobs required to fill these manpower needs, are urgently needed.

5. The kinds and levels of curriculum provided in vocational education bear evidence of the fact that there are no fewer educational values in vocational education than in the broad field of general education, and these facts have been borne out by several major studies.

6. Keeping curriculum current is apparently the greatest problem which faces vocational education. Every effort must be made in the future to keep the curriculum not only current, but anticipating the changes which are bound to occur in the broad field of vocational education.

REACTIONS BY PARTICIPANTS

1. Since vocational education for most individuals must rely upon some kind of effective exploration, it is essential that in the public schools industrial arts, homemaking, and any other kind of exploratory experience be carefully articulated with the vocational training program.

2. As a suggestion, the use of a mobile industrial arts unit should be made available in order that individuals in the lower grades (even in the primary grades) may be provided with the opportunity to explore and acquire occupational information about vocations.

3. Much more effective use of industrial arts should be made in pre-vocational training.

4. Industrial arts personnel and vocational education personnel should plan a series of conferences in order that careful articulation of the two programs may result in benefits for those who ultimately enroll in vocational education training programs.

5. Curriculums may be changed considerably by involving industry and employers in skill-training programs, including the preparation of individuals who may ultimately become instructors in vocational programs.

6. In order to effect changes in curriculums and thereby bring them up to date, instructors should be assigned to work in industry, and their work in such situations should be subsidized by the education institutions.

7. There is need for far more "institutes" to be established in states, enabling the currently employed staff to acquire the latest information relative to content as well as teaching methodology. Complete costs for these institutes must be borne by education institutions in

order that teachers may study in these institutes without personal cost.

8. Some exploration of the concept of industry-sponsored and government-subsidized projects to develop curriculums is a possibility. Many new occupations and certainly many new areas of employment are urgently in need of curriculums that have been carefully defined and detailed. Through industry-sponsored and government-subsidized projects, the development of these curriculums would be a distinct possibility.

9. There is an urgent need to experiment with the possibility of producing curriculums as a "continuum." This would mean that instead of producing a collection of courses which add up to a curriculum, a single curriculum embodying all of the course materials over a stipulated length of time should be anticipated and produced. In such form, experimentation should be carried out to note the quality of the graduate and the wide variety of occupations for which graduates may be prepared.

10. Curriculums are affected by the indicated needs of graduates five years and ten years after they leave the institution in which training was obtained. It is essential that a perpetual follow-up of graduates be kept in motion to produce a valid and important source of information affecting curriculum change and modernization.

11. Research is needed in the curriculum of vocational and technical education, with special attention given to the fundamental areas. Curriculums should be planned around cores of fundamentals with the addition of specialized training made available toward the latter part of the training program. Research which contemplates the foregoing might very well indicate a change in the organizational structure of vocational education for the future.

12. Every effort should be made to use "live" or "customer" work in vocational training, in order that the implied motivation and the stimulation which is obtained with real work may be realized.

13. Where contacts with employers in the field of industry are the major sources from which information concerning curriculum is derived, every effort should be made to derive the information from the second echelon personnel in industry. All too frequently, the information obtained from the top echelon is unreliable.

14. Curriculums may be affected by information contained in modern publications. All possible technical publications should be made available to instructors in currently operating vocational enterprises. These publications should be purchased and made available by the employing institution.

15. There is an urgency concerning the use of craft and advisory committees in connection with curriculum. Legislation in vocational education urges the use of craft and advisory committees, and there is the insistence in the law that administrators of vocational programs should make continuous use of craft and advisory committees in the modernization, up-dating and improvement of quality curriculums. This is a matter which should not be left to chance or to whim, but must be ordered and carried through by the administrative and planning head of the vocational institution.

PROBLEMS CONCERNING STUDENT ENROLLMENT

Eugene Bottoms
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Atlanta, Georgia

HIGHLIGHTS OF PRESENTATION

1. It is essential that vocational personnel accept as part of their responsibility the need to help individuals make a valid choice of vocational preparation.

2. The numbers of students making application to vocational enterprises are limited by the mark of status which is impressed upon vocational education by public opinion.

3. Little is known about why students enroll in vocational education programs. The "why" may very well involve the problems of family, status, economic problems, as well as a host of other factors.

4. There is a major question still to be answered concerning whether or not one can <u>really</u> arrange and organize an effective program of vocational education in a comprehensive type of educational institution.

5. One of the major problems affecting vocational enrollments concerns the matter of how to attack the southern culture which does not look favorably upon the employment of women in industry. The possibility of augmenting the labor force with young women cannot be met successfully in the South until this situation has been recognized and administered to.

6. Many of the educational publications that are currently available to young students concerning vocational opportunities need to be made far more attractive.

7. Parents, peer groups, and other similar segments of society are most important influences upon student enrollments. Also, the teacher in the public elementary and grade schools is an important characteristic of the fabric impinging upon the vocational choice of an individual.

8. All of the fault does not lie with the high school counselor and the teacher in matters of vocational selection. It is unfair to blame these individuals for all of the characteristics of society and of education which have a bearing upon the choices which a student may make concerning his future.

9. Modification and improvement of the selection procedures will help to establish a level of status and respectability for vocational education. The present procedures need serious consideration and possibly overhaul.

10. Public information concerning vocational education and its contribution to the national economy and to society must be made more effective. From such public information may come the kinds of individuals critically needed to be trained, and to staff the industries, the businesses, and the health and paramedical jobs in the nation.

11. Students should be selected on the basis of appropriate tests and selection devices. There is some serious doubt that the GATB is a usable and effective means of selection, even though it is used as the sole device by many states. Perhaps the development and the validation of a national technical test is a possibility for the future.

12. So long as enrollees in vocational education institutions believe that they are second-class citizens, they will be psychologically handicapped in their training and in their ultimate employment.

13. The work-study program is one of the most effective means to provide good occupational information. Work-study programs should be provided at an early grade and level, in order that individuals may form valid opinions concerning the world of work.

14. The inclusion of all kinds of student activities in a vocational program may help immeasurably to establish status in the program. These activities would include all those normally found in any other kind of public (academic) educational program.

REACTIONS BY PARTICIPANTS

1. An aggressive and continuing effort must be made by vocational authorities to provide a wide range of activities, including public information, in order that all persons may be fully informed concerning the possibilities and the potential of vocational education activities.

2. Vocational educators should not unduly emphasize the humanistic values of education, without reference to the employment possibilities. Thus, training in a broad area served by a vocational institution should be consistent with the employment possibilities, rather than training completely for export.

3. Programs of vocational education should be planned over as broad a spectrum as possible, in order to assist in enrolling students to find their level along the spectrum according to their individual capabilities.

4. The devices by which individuals are selected for enrollment for vocational enterprises are in need of a serious overhaul. Selection devices need immediate attention, since many qualified individuals are rejected on the basis of criteria which apparently have little bearing upon success in the world of work.

5. There is an urgent need now to organize community groups into a common enterprise through which service jobs and other kinds of jobs in each community may be identified and listed. There is ample evidence that many more jobs are available for individuals to fill than the current information would seem to indicate.

6. Enrollments in vocational enterprises are affected by societal agencies. Steps should be taken now by vocational persons to begin work

immediately with all of the societal agencies in a broad community. This problem is not one which is entirely the responsibility for vocational educators, but is one which should be actively worked on by all educational enterprises in the community.

7. Work orientation for young people should be started at a much earlier date in the public schools. Information concerning the world of work and the occupations included therein should begin in the lower grades.

8. Wherever occupational information concerning a vocation is produced--such as publications, leaflets, booklets, slide films, and motion pictures--sources of information for students should emphasize the peer groups in instructional activities. It was pointed out that nothing is as effective with a group of students as that kind of information which shows their colleagues in similar activity.

9. The pattern which school organization has followed in the past has produced considerable effect upon vocational enrollments. A study of school organizational patterns is necessary to determine the best possible structure and staffing of such situations to produce the levels and quality of enrollees for vocational enterprises.

10. Consideration should be given to the employment of a public relations firm to analyze the need for occupational information about the world of work and vocational education. Following such an analysis, the public relations firm should be instructed to conduct a scientifically built "image of vocational education" and to project it in the broad area served by the vocational institution.

PROBLEMS CONCERNING POLICIES AND OPERATING PROCEDURES

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Raleigh, North Carolina

HIGHLIGHTS OF PRESENTATION

1. There appears to be a serious lack of policies concerning vocational education and its relationship to the community and the agencies of the community.

2. The lack of policies is reflected in problems which include the isolation of public education from vocational education and it from the community.

3. Large sums of money are currently being made available from a variety of vocational legislative acts, but policies for the expenditures of these funds are lacking. In most cases, policies are made after the dollars have been located and allocated.

4. There is a tendency in vocational education to be reluctant to engage in research, development, innovative experiences and other kinds of activities designed to raise the professional level of the staff.

5. Policies as "guiding principles" must precede any action in the field of vocational education. This is a prerequisite to all developmental activities in the field, and policy making should be organized to precede rather than to follow.

6. Policy making must be continuous on the top level of the vocational administrative echelon, and is usually the responsibility of lay boards.

7. The development and implementation of operating procedures are

the responsibility of the professional staff, after the policies under which such operating procedures must proceed have been developed and adopted.

8. Policy must provide the basis for:

a. Who are to be served by the public schools and by vocational authorities.

b. Literacy training for adults.

c. Evaluation provisions and procedures.

d. The administrative pattern for public and vocational education.

e. Procedures for attracting, employing, and recruiting staff.

f. Determination of sources of funds and facilities as a matter of policy (i.e., sources of equipment from industry).

g. Support of research and development.

h. How the public is to be kept informed.

i. How the lay board will formulate policy and how it can corral intelligence to help in the formulation of policy.

REACTIONS BY PARTICIPANTS

1. All policies currently in use in a vocational enterprise should be printed and widely publicized.

2. Policy making involves all people, and steps should be taken to involve the total staff of a vocational enterprise in searching out and exploring kinds of policy matters which need statement. The Vocational Education Acts indicate the urgent need for involving a wide range of personnel to participate in policy making. This procedure should be carried on also at the state and local level.

3. Policy with regard to vocational education should be influenced through area groups of industrialists and business people. Steps should be taken to organize groups on an advisory basis whose thinking and innovation can help produce usable policy. These groups may anticipate problems and influence the enactment of policy.

4. Policies critically needed in all vocational enterprises include:

   a. The need to keep up area studies and to make the follow-up of graduates a perpetual activity.

   b. Research concerning the relationship of the quality and quantity of the vocational program as compared to any given individual's capabilities.

   c. Policy concerning the follow-up of graduates and their performance in accordance with standards established by industry. Performance must include manual skills and a demonstration of technical knowledge and also a demonstration of citizenship skills and those

pertaining to social competencies.

d. If vocational education is to succeed in its mission, policies must clearly indicate that the training provided under vocational auspices must be job-oriented.

e. A policy which is of most importance should be written around the involvement of the employing interests in the world of work in such activities as evaluation of the quality of the instructional program. Industry, business, and all employing elements must be involved in planning and carrying out the evaluative process.

f. Policy is needed concerning the procedures which should guide the conduct of research, training, and development. Policies regarding the place of the educator are needed, since it has been felt that the educator must be active in initiating programs of research, development, and training, but that all elements affected and included within vocational enterprise must be involved thereafter.

5. Policy-making, suggesting, review and modification must be the responsibility of the total community, and steps should be taken to involve all elements of the community in this kind of activity. The ultimate enactment of policy which is usually the result of action taken by the lay board should only be taken after adequate opportunity has been given to groups in the community to make their influences, intelligence and wishes known.

PROBLEMS RELATED TO FINANCING OCCUPATIONAL EDUCATION

Robert Lafaso, Director
Office of Mobility Studies
North Carolina Fund
Durham, North Carolina

HIGHLIGHTS OF PRESENTATION

1. Vocational education should be one of the easiest kinds of education to evaluate, since a student who receives training gets a job and the employer makes an immediate evaluation of the success of the training program.

2. There is almost an unlimited source of money for the conduct of vocational education enterprises from a great number of government sources. Information concerning the sources for vocational education may be obtained from the United States Office of Education. There should be no problem regarding the financing of education, since the sources of funds have not been used to their full limits.

3. Data need to be produced and keyed to the interest of Congress. Not all members of Congress are education-oriented, and the data must be meaningful in terms of what they consider to be fundamental to the economic and social situation in the nation. Care should be taken that the data obtained to substantiate the method of finance of vocational education not be keyed to what educators seem to want to read in final repprts.

4. The industrial impetus in the nation is being stalled because of the limitations of the preparation of skilled workers. With the available funds for vocational training, this is inexcusable.

5. The Economic Opportunity Act provides great sources of money, much of which may be used for vocational education. The great number of

skill centers that are planned for operation soon will produce one or more forms of vocational education.

6. The skill centers operating under the authority of the Economic Opportunity Act will be training people at reasonable costs for jobs which require short-term training, as compared with the more expensive vocational training enterprises which involve training on a long-term basis.

7. All of the people that need training in order to obtain work will not be trained by vocational facilities. Some will be trained by industry, and a great many will be trained by the armed services and other non-educational authorities. It is absurd to believe that all vocational education must be financed by funds available specifically for vocational training.

8. Vocational education for all people in the national that wish it is a responsibility of all of the people. In cases where public vocational authorities are concerned, and funds are available, these agencies must do everything possible to serve the people who need the training, since the receivers of the training are consumers and must be helped to become producers.

9. In those skill centers which are currently in operation under the Economic Opportunity Act, the placement rates are exceptionally high, and it has been presumed that this is an effective way to help consumers become producers as part of a functioning economy.

REACTIONS BY PARTICIPANTS

1. In the operation of centers for the preparation of individuals for low level skills, where there is a conflict in the training requirements and the demonstrated capabilities of the student, it is urged that the counseling procedures be reviewed. There is urgent need now to examine with care the procedures being used in the selection and enrollment of individuals in this level of vocational training.

2. There is much evidence to indicate that the availability of financial assistance from the federal government in all of the vocational parts of legislation may be dependent upon the extent and effectiveness of evaluation procedures which point up the quality level of the education being provided with the federal funds.

3. The comprehensive manpower effort now being organized may provide the pattern through which vocational education could and should be financed. This comprehensive manpower effort is a joint responsibility of the United States Department of Labor and social agencies concerned with the employment of minority groups as well as other major groups in the nation.

4. There are approximately forty sources of funds from state and federal agencies to finance vocational education in all of its many aspects. There is urgent need to explore and to carefully identify the sources of these funds, in order that the funds may be put to effective use in helping all who need training to acquire it.

5. After the initial costs for the administrative and supervisory structure of programs of vocational education have been met, the additional

funds available from state and federal sources should be used to expand the vocational programs at an accelerated rate.

6. Dollars should be allocated for the updating of persons who are currently underemployed. This is an area in the broad vocational spectrum that has yet to receive major emphasis. The "under-employment" of individuals who might well be geared to fit highly technical and highly skilled occupations should receive attention and financial support from vocational and community authorities.

7. With the interest of the total work force as the motivating device, it is quite possible that in the near future the Office of Economic Opportunity will work closely and effectively with vocational enterprises in the nation in providing adequate resources for the training of individuals who need to be equated to available jobs in the community. When one agency is unable to provide the training, the other may well offer its financial support and cooperation.

8. Since there is an abundance of federal, state, and local legislation providing for vocational education, the importance of a coordinator whose sole responsibility is to keep abreast of the legislation and the sources of funds is essential to the further development and ultimate financing of vocational enterprises.

APPENDICES

APPENDIX A

SUMMARY OF TOPICS AND ISSUES TO WHICH PARTICIPANTS REACTED

Kinds of Problems that Need Solutions

Personnel

1. How should recruitment and selection of teachers for vocational positions (principally trade and technical) be conducted?

2. What steps are feasible in measuring the quality of (a) pre-service and (b) in-service education programs for vocational teachers?

3. What should the nature and content be of growth and promotional programs for instructors, out of which might come the supervisory and administrative personnel needed in the South?

4. Upon which elements of leadership program is there most need to place emphasis, in order that in the shortest possible period of time individuals may be prepared as reasonably effective supervisors of instructional programs?

5. What kinds of procedures are feasible and supportable in keeping instructors up-to-date in rapidly changing skill and technical fields?

6. How can an adequate supply of qualified instructors be maintained in vocational enterprises?

7. How can well-qualified counselors at the vocational level be prepared and obtained?

Curriculum

1. How can we make more effective the articulation between industrial arts education and industrial education?

2. What extensions to the occupational information and guidance programs offered in the public schools are needed, if all young people (and adults) are to be served according to their individual aptitudes, needs, and interests?

3. How essential is it that curriculums be kept up-to-date in all skill and technical areas of study, or is there a core of skills and technical information that may be all that is required in preparatory programs?

4. What means may be used to determine well in advance the developments that may affect vocational curriculums?

5. How shall the best proportion of employment-oriented instruction to general education be determined in most vocational education programs? How shall the differences be resolved between the vocationalists and the generalists in the above matter?

6. How can the needs of business, industry, government and the professions be forecast so that a more vital way of relating the developments of technical programs to these needs may be determined?

Students

1. What steps could be effective in apprising young women of the excellent opportunities available in many of the technical occupations, formerly reserved for men only?

2. Which specific groups of individuals are not now being adequately reached by vocational education, and what are the means and procedures for meeting the vocational needs of these groups?

3. What procedures should be used and what information should be obtained from graduates of vocational education programs, in order that

the quality of the programs may be appropriately measured?

4. What are the implications for curriculum revision implicit in the finding that many "early leavers" from vocational programs are average to high level achievers?

5. What are the status problems, and particularly the suggested solutions to the situation which tends to orient youth away from vocational education?

6. Does the student activities program have value in the vocational situation? How can students be encouraged to seek more active participation in student activities, if it has value?

Policies and Operating Practices

1. How essential is it that the preparation of students for occupational proficiency include "live" or "customer" types of work experiences?

2. Should procedures be developed which will result in cooperative arrangements between business, industry, and education in order that appropriate "live" or "customer" types of work experiences may be used?

3. How urgent is it that advisory (and consulting) committees be active in each area of vocational activity?

4. What are the limits to the responsibilities of advisory committees?

5. How essential is it that commercial types of equipment be used in all kinds of vocational education? Can miniature, prototype, or other arrangements be as effective?

6. Should teachers and/or supervisors be responsible for identifying and then producing new curriculum materials?

7. How can innovation in teaching methodology be stimulated in vocational education?

8. How can articulation with institutions having similar vocational interests and problems be effectively implemented at the local, state, and regional level?

Finance

1. How can the limited finances for conducting vocational education be best used to serve the widest possible spectrum of individuals?

2. Is it economical and sound educationally to build and conduct vocational enterprises in skill-centers?

3. What kinds of data, statistics, examples, reports, etc., are most useful in keeping the budget bureaus, the tax boards and the appropriations committees fully apprised of the urgent need for funds to conduct quality vocational education?

4. How can the financial resources necessary to support sound programs of vocational education be raised and most effectively utilized?

APPENDIX B

PROGRAM

Convene in Room 250
Erdahl-Cloyd Student Union

May 9, 1966

9:15 a.m.
Welcome: Dr. J. T. Nerden
Remarks: Dr. J. B. Kirkland, Dean
School of Education
North Carolina State University at Raleigh

The Research Effort:
Dr. Selz C. Mayo, Director
Center for Occupational Education
North Carolina State University

The Purpose and Procedures of the Conference:
Dr. J. T. Nerden

10:00 a.m.
Statement of the Problems Concerning "Administrative and Instructional Personnel"
Mr. Lane Ash, Director
Program Services Branch
Bureau of Adult and Vocational Education
U. S. Office of Education

Discussion

Conference on Significant Issues and Solutions

12:00 Noon Lunch

1:30 p.m.
Statement of the Problems Concerning "Curriculum"
Dr. Merle Strong, Assistant Director
Program Services Branch
Bureau of Adult and Vocational Education
U. S. Office of Education

Discussion

Conference on Significant Issues and Solutions

3:15 p.m.
Statement of the Problems Concerning "Student Enrollees"
Dr. Gene Bottoms, Supervisor
Vocational Guidance
Georgia State Department of Education

Discussion

Conference on Significant Issues and Solutions

5:00 p.m.
Adjourn for the day

May 10, 1966

8:30 a.m.
Statement of Problems Concerning "Policies and Operating Procedures"
Dr. Harry G. Beard, Associate Professor
Education and Rural Sociology
North Carolina State University

Discussion

Conference on Significant Issues and Solutions

10:15 a.m.
Statement of Problems Relative to "Financing Vocational Education"
Dr. Robert Lafaso, Director
Office of Mobility Studies
North Carolina Fund

Discussion

Conference on Significant Issues and Solutions

12:00 Noon
Summarization

12:30 p.m.
Lunch and Adjournment

CONSOLIDATED UNIVERSITY OF NORTH CAROLINA

WILLIAM FRIDAY, Ph.D. ..... President

NORTH CAROLINA STATE UNIVERSITY AT RALEIGH

JOHN TYLER CALDWELL, Ph.D. ..... Chancellor
HARRY C. KELLY, Ph.D. ..... Dean of Faculty
WALTER J. PETERSON, Ph.D. ..... Dean of Graduate School

CENTER FOR OCCUPATIONAL EDUCATION

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SELZ C. MAYO, Ph.D. ..... Sociology and Anthropology

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SELZ C. MAYO, Ph.D. ..... Acting Director, 1965-66

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